

1. Few chemicals used - destroy or irritate surrounding tissue - not heal. Radium - burns outer skin of Dr. hands
has been administered as cancer patient successfully.

2. Bacterial organisms used weaken or killed before injected in body.
In typhoid - ant. of killed bacteria injected. Absorbed by blood &
stimulate formation of similar antibodies as if typhoid entered
usually 3 injections. Live organisms not used as present in
intestine & makes carriers of people.

3. Smallpox - virus producing discharge from eruption of
mild case.

Vaccines - grown in lab. Bacteria used taken from diseased
tissues & kept alive.

Antitoxins - neutralize poisons which bacteria make. Chicken
given enough toxin to produce supp. antitoxin again.
Plasma produced by bacilli - from animal's blood
neutralizes effects of toxin & called antitoxin. Animal
bled 10 ph. Blood stands in sterile vessel until it
coagulates & a clear yellow liquid separates. 2 blood
serum & constitute diph. antitoxin serum used in
treatment of disease. By hypodermic needle - on arm
& late comes into veins.

Report V

Food Control

Functions of Food - 3.

1. Provides energy dependent on the class of food
2. Supplies material for metabolism
3. Regulates body processes even for sleeping

Food 4. satisfied

1. Fats
2. Carbohydrates
3. Proteins
4. Minerals
5. Vitamins

Results of deficiency

Protein - Lack of energy & body heat

Calc & Vit

Minerals - Calcium & phosphorus - malform of bones - weak - decayed teeth - long illness pregnancy. Iron & copper def. lead to anemia

Vitamins - A - cold & upper respiratory infections. B - nervous & heart disease. C - scurvy & gum inflammation & sores for dental health & decay. E - phlogestone over 10 & longer. Digestion disturbed - swelling of skin - impact area - loss of upper area on skin

Results of excess

Fats - Large body - nervous (over) stress

Carbohydrate - 2 types & 2% sugar - sugar - 20%

of sweet taste appet - nervous.

Fast part of sweet

Protein - Not easily loved & by body. & much
work of digest. Tissue & excretory organs.

Mineral - Potassium causes salt craving &
little salt cause demineralization for pale white.

2 more - interfere with digestion.

Indicates of Poor Nutrition

1. Slow growth
2. Slender weight
3. Poor teeth
4. Poor hair
5. Pale eyes
6. Sluggish skin
7. Sluggish & nervous
8. Thirst

What can be done by

1. Lack of knowledge of food values
2. Poor eating habits
3. Intense work & studies
4. People showing themselves & nervous.
5. Poor income.

2. Adulteration

1. ^{of pure} treatment of food often involving its heating
to heat to 100° F. or 200° F. or 300° F. or 400° F. or 500° F.

2. Material mixed with foreign substance & then
or lower its quality or effect with mixed with
3. One can select for mixture with a part
of the food or mixture of them all

3. Any water content either whole or part
showing trace of milk.
4. One can select for mixture with a part

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March 11 - 1912

Shrimp:

Red for red shrimp

Preservation:

annually, Red of shrimp - organism surviving
good to dehydrate

Notes - 1. free food from infected organism
2. to conserve food and avoid spoilage

By

refrigeration - red shrimp, freezing

Salting - Salting - blanching - canning

Freezing in strong brine but it may be done
in salting

Chrysomelid Beetles

They are long but 48 can't be placed in

the jar - Temp & diet must be 5°C + 5°C

the beetles may place. Beet life span 20

months after 25 days. Beet - beetles

only at low temp

Preservation - Beet preserved by drying - Beet may be

preserved by drying - Beet may be

also by drying method. Beet doesn't grow in jar.

That's all - but not salting

Salting - Pickling

Beet called. Beet & produce acid beet

change place

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Canning - beet may be preserved in food. Beet

may be preserved in food. Beet

For a glass of the beet

Restaurants -

Cleanliness

Type & no. of vermin.

Unnecessary handling.

Of equal if not greater imp. of retailed store. Carriers & in early stages of disease i.e. clerks, dish washers, etc.

Utensils might be thoroughly cleaned in this case infective agents survive.

Higher rate of infection among staff in ^{the} store.

Ordinary use of dish washing no good & destory disease.

Use of boiling water most effective. Soapy water on wire tray. No wiping necessary.

Diseases (by contact) away from rest. til everything over.

Hotels in M.S.

Well - lighted & ventilated, free from flies, & vermin. Windows doors inaccessible free by screens. All linen clean & sanitary. All food properly cleaned & served. ^{Rest.} Rooms for food - clean, & in good order.

Swimming Pools -

Case & Sanitation.

2 types - 1. fill & draw - water drawn off & replaced at frequent intervals.

2. Recirculating type - pipes, - inlets, outlets, - hair catcher, pumps, mechanisms for coagulation & alkaline treatment, filters, disinfecting apparatus, water heater, suction cleaner.

Construction - Efficient drainage & cleaning. Scum gather for sludge & scum. Vacuum cleaner apparatus for removal of sediment from bottom of pool.

Disinfection

Continuous. Chlorinator of approved type

for application of chlorine to water. Tests
1 or 2 times per day.

Types 1. Use of chlorine compounds - calcium
liquid chlorine hypo - chlorite

2. Ultra-violet lamps. Purified
only when in contact with lights. - not
very satisfactory.

3. Recirculating - Water pipes into
sand filters receives dose of liquid
chlorine - Coagulated ^{or entering pool} added to water. ^{at intake}
Makes water sticky film prevent bacteria from ^{going into} hoses 95%
of bacteria. 4. sufficient action water
must be alkaline - soda ash or
ammonia added.

4. Bacterial Test - 1. 4 bact. content
& presence of organisms of colon group.

2. 2 samples taken per hr.

3. Algi develop - destroyed
by copper sulphate.

Bathing hood

2 - 20 person & every 1,000 gal. water

Lockers, toilets & showers frequently
scrubbed. Couple floor drains. No connection
between.

Athletic Ft. Infection.

Fungus had 2 kills.

200 Controlling & preventing.

1. Recop cases of infection & preventing & treatment.

2. Compelling cleaning of shoes as they enter.

3. Use of antiseptic foot bath.

4. Disinfection of clothes & towels. 10% for 10% disinfectant.

Standards

1. Well lighted for safety
2. Perfectly smooth surface - no cracks etc.
3. Free way drainage from pool
4. Pool & runway free from obstruction
5. Clear, pure, colorless water by inflowing stream, filtration along margin
6. Disinfection necessary by chlorine of lime, chlorine gas, ultra-violet rays or ozone.
7. Strict supervision of bathers
 - a. Med. Exam.
 - b. Inspection of entry
 - c. Pre-cleaning bath w. soap
8. Attendance proportionate to swim & L. Diving always on duty
9. Pool locked when not in use.

Boarding Houses

1. No D. H. can enter into B. H. or tenement.
2. If on such room - more persons than healthy - not more than 6' of air space - window, etc. - to endanger public health - allowed to remove anything obstructing
3. Placards - violations enforceable or danger health of public closed by H. H. C.
4. Business of B. H. compelled to have fire escapes if more than 2 floors high
5. 1934 British Housing Bill

- 1 room - 2 people.
- 2 " - 3 "
- 3 " - 5 "
- 4 " - $7\frac{1}{2}$ " of habitable area
- 5 " - 10 "

Milk

Report 8

- Protected Protective Food.

Milk - valuable, protected - also butter, cheese, meat, fruit, veg. etc. whole grain cereals.

- convenient source of calcium - $\frac{3}{4}$ of c. from diet by milk. not expensive. Also proteins, salts, vitamins, sugar, some fat. Phy. state makes it digestible.

Protein not nutritious.

Casein provides amino acids.

Milk also supplies fat & Carboy.

Fat melt at lower temp than other fats easily digested. Vit A., & Riboflavin (B₂ vit⁺) are present. These essential for growth.

Vit A. forms part of visual purple helps prevent night blindness. Other & normal metabolism.

Thiamin - (B₁, V) Beriberi.

Not perfect food as doesn't contain all constituents - not much iron but what it has is utilized well.

From Pasteurization

Nutrient value of milk protein not harmed.

Sugar & fats not altered.

Calcium & phosphate content not diminished.

Doesn't lessen Vit. A. content.

Total Nutrient value not altered.

Increase consumption of milk in Can. would improve level of Public Health.